Application No.: 10/569,475 Docket No.: 1155-0293PUS1 Reply dated December 4, 2009

Reply to Office Action of September 4, 2009

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A telechelic polyolefin, which is represented by the following general formula (I):

$$X-P-Y$$
 (1)

wherein X is and Y are each a group containing at least one element selected from oxygen, sulfur, Y is a group containing nitrogen, phosphorus and halogens, X and Y may be the same or different, P represents a chain the exhibits syndiotacticity made [[only]] from an olefin selected from the group consisting of ethylene, propylene, 1-butene, 1-pentene, 3-methyl-1butene, 1-hexene, 4-methyl-1-pentene, 3-methyl-1-pentene, 1-octene, 1-decene, 1-dodecene, 1tetradecene, 1-hexadecene, 1-octadecene, 1-eicosense 1-eicosene, eyelic olefins having 3 to 20 earbon atoms, vinylcyclohexane, and dienes and polyenes having 3 to 20 carbon atoms, and X and Y are bonded to both terminals of P, wherein the number average molecular weight (Mn) and molecular weight distribution (Mw/Mn) obtained by gel permeation chromatography (GPC) is from 1.0 to 1.5.

2. (Cancelled)

3. (Currently Amended) The telechelic polyolefin according to claim 1, which is obtained by: performing the following steps 1a, 2, and 1b 1, 2 and 1 in this order in the presence of an olefin polymerizing catalyst containing a compound (A) which contains a transition metal in the groups IV to V; and subsequently performing the following step 3 if necessary:

(step 1a) (step 1) the step of bringing it into contact reacting the olefin polymerizing catalyst with a polar-group-containing olefin (C) represented by the following general formula (II):

$$CHA=C(R)-Q-Y'$$
 (II)

wherein Y' is a group containing at least one element from oxygen, sulfur, nitrogen, phosphorus and halogens, Q is an alkylene group which may have a substituent, a carbonyl

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group, or bivalent oxygen, A and R each represent a hydrogen atom or a hydrocarbon group which may have a substituent, and A or R may be bonded together to Q to form a ring,

(step 2) the step of bringing reacting the resultant compound of step 1a into contact with at least one olefin (D) selected from ethylene and olefins having 3 to 20 carbon atoms n times wherein n is an integer of 1 or more, so as to mix them (provided provided that when n is an integer of 2 or more, the olefins (D) used in the respective contact operations are different in kind or composition composition),

(step 1b) the step of reacting the resultant compound of step 2 with the same or different polar-group-containing olefin (C), and

(step 3) the step of chemical conversion chemically converting the Y' group in the general formula (II) to a different group.

4. (Currently Amended) A process of preparing a telechelic polyolefin, which is represented by the following general formula (I):

$$X-P-Y \qquad \qquad (1)$$

wherein X and Y are each a group containing at least one element selected from oxygen, sulfur, nitrogen, phosphorus and halogens, X and Y may be the same or different, P represents a chain made mainly of an olefin composed only of carbon and hydrogen atoms, and X and Y are bonded to both terminals of P, wherein the molecular weight distribution (Mw/Mn) obtained by gel permeation chromatography (GPC) is from 1.0 to 1.5, wherein the telechelic polyolefin is obtained by: performing the following steps 1a, 2, and 1b 1, 2 and 1 in this order in the presence of an olefin polymerizing catalyst containing a compound (A) which contains a transition metal in the groups IV to V; and subsequently performing the following step 3 if necessary:

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(step 1a) (step 1) the step of bringing it into contact reacting the olefin polymerizing catalyst with a polar-group-containing olefin (C) represented by the following general formula (II):

$$CHA=C(R)-Q-Y'$$
 (II)

wherein Y' is a group containing at least one element from oxygen, sulfur, nitrogen, phosphorus and halogens, Q is an alkylene group which may have a substituent, a carbonyl group, or bivalent oxygen, A and R each represent a hydrogen atom or a hydrocarbon group which may have a substituent, and A or R may be bonded together to Q to form a ring,

(step 2) the step of bringing reacting the resultant compound of step 1a into contact with at least one olefin (D) selected from ethylene and olefins having 3 to 20 carbon atoms n times wherein n is an integer of 1 or more, so as to mix them (provided provided that when n is an integer of 2 or more, the olefins (D) used in the respective contact operations are different in kind or composition emposition),

(step 1b) the step of reacting the resultant compound of step 2 with the same or different polar-group-containing olefin (C), and

(step 3) the step of chemical conversion chemically converting the Y' group in the general formula (II) to a different group.